Nawada, Gaya, Aurangabad, Vaishali, Muzaffarpur, Sheohar, East Champaran have annual incidence rate ranging from 4.7 to 25.0 per lakh population, which falls in highest incidence reporting for AES while Patna, Jehenabad, Nawada, Gaya, Lakhisarai, Gopalganj, Siwan, East Champaran and West Champaran have annual incidence rate ranging from 0.546 to 1.78 per lakh for JE. Study shows the incidence of AES and JE in Bihar is keep increasing since 2009.

Conclusion: AES and JE is an endemic problem in Bihar state with now all district reporting cases of AES and JE. Reporting and surveillance mechanism needs to be strengthened at local level also. Confidence among the private practitioners needs to be developed for reporting of AES cases which are participating less in surveillance activities. Intense IEC activities concentrate efforts for prevention and control strategy must be operationalized at sub district level and village level to increase the participation from community so that passive surveillance increase.

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Surveillance of tropical infections in medical intensive care unit

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Background: Every year different parts of India are hit by seasonal fevers in the post monsoon period. These fevers include Dengue, Malaria, Scrub Typhus, Leptospirosis, Typhoid fever and some other fevers leading to very high morbidity and mortality. The clinical picture of these diseases is so overlapping that it is almost impossible to achieve differential diagnosis of these diseases in emergency and ICU settings when the time available for intervention is highly limited. This study was conducted to generate surveillance data on tropical infections of Indian population.

Methods & Materials: This, three year long, observational, cross-sectional study captured data from medical intensive care unit of a private tertiary care hospital of northern India. A total of 51 patients were screened; and, the results are based on data from 46 patients.

Results: Leptospira (41%), dengue fever (22%), malaria (7%) and scrub typhus (30%) were the four most common tropical infections. At the time of admission, 95% patients presented with fever followed by jaundice (10%). On progression, thrombocytopenia (88%), liver dysfunction (80%), renal dysfunction (75%), secondary sepsis (68%) and shock (58%) were noted in patients. Patients were treated with antibiotics, intravenous fluids and transfusion of blood & blood products. In terms of outcomes, 60% of patients survived the infections.

Conclusion: Tropical infections may prove fatal. Such mapping provides information about the prevalence and incidence, clinical presentation, multi organ dysfunction in tropical infections. Larger

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Influenza-associated hospitalizations In Maputo City - Mozambique

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Background: Influenza incidence, impact and risk factors constitute the keys for definition of national health priority actions worldwide. Influenza impact and manegement are not consistent in most developing countries, particularly in Africa. Thus, in order to generate local and consistent information, Mozambique has been implementing a sentinel influenza surveillance system since 2013. This study aimed to evaluate the influenza impact on hospitalizations, the main characteristics of patients with influenza in hospitalized pediatric and to identify factors associated with severe outcome in Maputo City.

Methods & Materials: A retro/prospective data analysis of hospital admission records/logbooks and SARI surveillance database was conducted from January 2014 to July 2015 in three sentinel hospitals in Maputo City. We calculated the proportion of hospitalizations associated to SARI and Influenza using the size of the inpatient population and SARI tested for influenza, respectively. Clinical management of influenza cases were analysed. Influenza factors associated with hospitalization were assessed by comparing 138 non-influenza SARI cases matched by age and time of hospital admission. We analyzed the time of hospitalization and outcome of disease.

Results: From the 12969 hospitalizations, 5970 (46%) were children (<14 yrs). SARI-associated hospitalization accounted for 38% (5018) of which 53% (2695) were children. From the 1006 tested specimens, influenza virus was detected in 5.2% (53/1006) and 4.6% (44/947) of the general and pediatric inpatients, respectively.. High influenza virus activity (38/53) accured in January and April, coincidently with the first annual peak of SARI hospitalizations. The epidemic periods were dominated by both influenza B and influenza A (H3) in 2014 (7/13 vs 8/13) and influenza A(H3) in 2015 (19/25). From 138 cases, 46 influenza-associated SARI hospitalizations bronchopneumonia was the most frequent outcome with 64.5%, followed by breath shortage with 17.4%. The average length of stay was 3.72 ± 2.5 days, These results were comparable to non-influenza and no statistical difference was found.

Conclusion: These findings suggest that influenza-associated hospitalization is significant in children and reinforce the need of SARI clinical management guidelines review, especially during epidemic periods. Severe outcomes are similar between influenza and non-influenza associated hospitalizations. Although

not exclusively associated, influenza virus should be considered in bronchopneumonia cases.

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Dengue virus infection in the Democratic Republic of Sao Tome and Principe

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Background: Dengue fever has become a worldwide public health concern, threatening an estimated 40% of the world's population. However, most resource and focus are still put on malaria in Africa. Dengue statuses are poorly recognized in many African countries.

Methods & Materials: This serological survey demonstrated dengue virus (DENV) transmission with serum samples collected from 78 pregnant women in the Democratic Republic of Sao Tome and Principe (DRSTP) during 2003 to 2004.

Results: Immunofluorescence assay was performed and found 31 samples (39.74%) were positive for DENV antibodies. Indirect enzyme-linked immunosorbent assay (ELISA) showed that 53 samples (67.95%) were positive for dengue E IgG, and 38 samples (48.72%) were positive for NS1 IgG. A prevalence of 35.9% was therefore determined for dengue IgG considering samples positive by all three tests. Cross-reactions with other flaviviruses were examined by indirect ELISA against Japanese encephalitis virus, West Nile virus, and yellow fever virus. Only one sample exhibited stronger absorbance against Japanese encephalitis virus and West Nile virus. Moreover, one sample was positive for dengue IgM. These results agreed with the previous researches in neighboring countries and suggested DENV circulation.

Conclusion: The study contributes to raise public awareness of dengue and support future control strategies.

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Identification of potential source of vibrio cholera- A subgroup analysis from cholera outbreak of an urban resettlement colony, North India

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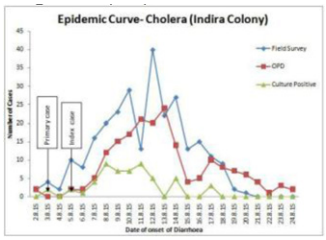
Background: Cholera is a potentially fatal, faeco-orally transmitted bacterial disease which is endemic in India. For centuries, outbreaks are happening every year in different parts of the country. Different types of source were found during outbreaks. This study was during recent cholera outbreak at Chandigarh, "City Beautiful of India in August, 2015 to identify potential source of infection.

Methods & Materials: It is a cross sectional study with incorporated analytical component. Standard outbreak investigation methods were used along with a semi-structured questionnaire to identify the potential source of infection. Following an index cholera case reported from Indira Colony, an urban resettlement colony of Chandigarh by the surveillance team, active disease and water surveillance was initiated and passive surveillance was further strengthened. Apart from stool culture, drinking and sewage water were tested for microorganisms. Four subgroups were made namely cholera positive (40), negative(22), untested cases (40) and non diarrhoea controls (40) and further analysis was done.



Results: Totally, 267 and 184 diarrhoea cases were identified respectively through active house to house survey and passive surveillance. Stool culture was positive in 59 cases out of 125 tested cases. All cases were managed promptly and no death was reported. All contacts were given chemoprophylaxis and mass health education to whole area. Drinking water from 3 tube wells were found positive for H_2S test and coliforms. Drinking water was determined as a potential source after analysis of place, cleanliness, chlorination, contamination and other operational issues with tube wells. Diarrhoea was more common among men (OR-2.6) and vegetarians (OR-2.36) especially among raw vegetable eaters (7.6) irrespective of place of purchase. Egg (OR-0.39), meat (OR-0.36) and fish (OR-0.31) exposure were found significantly lower among cases. Eating from street vendors and encroachment of drinking water line by toilet was not found significant.